

Docket No.: 5916/FET/FET/DV

PATENT/OFFICIAL

2812  
#7  
DL  
09/25/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Young Joseph PAIK

Serial No. 09/998,384

: Group Art Unit: 2812

Filed: November 30, 2001

: Examiner:

For: FEEDFORWARD AND FEEDBACK CONTROL FOR CONDITIONING OF  
CHEMICAL MECHANICAL POLISHING PAD

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Honorable Commissioner for Patents  
Washington, D.C. 20231

Sir:

In accordance with the provisions of 37 C.F.R. 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the documents listed on the attached form PTO-1449. It is respectfully requested that the documents be expressly considered during the prosecution of this application, and that the documents be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is being filed within three months of the U.S. filing date OR before the mailing date of a first Office Action on the merits. No certification or fee is required.

This submission does not constitute a representation that a search has been made or that no better art exists and does not constitute an admission or representation that any of the listed documents is material or constitutes prior art. If it should be determined that any of the listed documents does not constitute prior art under the United States law, Applicants reserve the right

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to present to the Office the relevant facts and law regarding the appropriate status of such document.

No certification or fee is believed to be required. However, the Commissioner is hereby authorized to charge any additional fees should any be required for this submission, or credit any overpayment to deposit account no. 08-0219.

Respectfully submitted,

HALE AND DORR LLP



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Date: 9/19/02

**INFORMATION DISCLOSURE  
CITATION IN AN  
APPLICATION**

(PTO-1449)



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**U.S. PATENT DOCUMENTS**

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	4,698,766	10/06/87	Entwistle et al.			05/17/85
	4,967,381	10/30/90	Lane et al.			07/06/89
	5,208,765	05/04/93	Turnbull			07/20/90
	5,226,118	07/06/93	Baker et al.			01/29/91
	5,231,585	07/27/93	Kobayashi et al.			06/20/90
	5,420,796	05/30/95	Weling et al.			12/23/93
	5,469,361	11/21/95	Moyne			06/06/94
	5,525,808	06/11/96	Irie et al.			12/20/94
	5,586,039	12/17/96	Hirsch et al.			02/27/95
	5,603,707	02/18/97	Trombetta et al.			11/28/95
	5,664,987	09/09/97	Renteln			09/04/96
	5,812,407	09/22/98	Sato et al.			08/12/97
	5,828,778	10/27/98	Hagi et al.			06/12/96
	5,832,224	11/03/98	Fehskens et al.			06/14/96

**FOREIGN PATENT DOCUMENTS**

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
	61-171147	08/01/86	Japan				X
	6-184434	07/05/94	Japan				X
	0 621 522 A2	10/26/94	Europe			X	
	8-50161	02/20/96	Japan				X
	8-304023	11/22/96	Japan				X

**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

	February 1984. "Method and Apparatus of in Situ Measurement and Overlay Error Analysis for Correcting Step and Repeat Lithographic Cameras." <i>IBM Technical Disclosure Bulletin</i> , pp. 4855-4859.
	October 1984. "Method to Characterize the Stability of a Step and Repeat Lithographic System." <i>IBM Technical Disclosure Bulletin</i> , pp. 2857-2860.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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## U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,859,964	01/12/99	Wang et al.			10/25/96
	5,863,807	01/26/99	Jang et al.			03/15/96
	5,870,306	02/09/99	Harada			06/13/97
	5,903,455	05/11/99	Sharpe, Jr. et al.			12/12/96
	5,916,016	06/29/99	Bothra			10/23/97
	5,923,553	07/13/99	Yi			10/05/96
	5,930,138	07/27/99	Lin et al.			09/10/97
	5,940,300	08/17/99	Ozaki			05/08/97
	5,960,214	09/28/99	Sharpe, Jr. et al.			12/04/96
	5,963,881	10/05/99	Kahn et al.			10/20/97
	5,982,920	11/09/99	Tobin, Jr. et al.			01/08/97
	6,041,270	03/21/00	Steffan et al.			12/05/97
	6,078,845	06/20/00	Friedman			11/25/96
	6,112,130	08/29/00	Fukuda et al.			10/01/97
	6,148,246	11/14/00	Kawazome			06/10/98

## FOREIGN PATENT DOCUMENTS

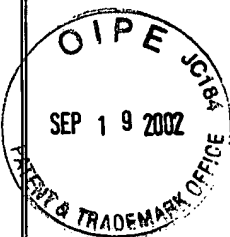
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
	0 747 795 A2	12/11/96	Europe			X	
	10-173029	06/26/98	Japan				X
	0 895 145 A1	02/03/99	Europe			X	
	11-126816	05/11/99	Japan				X

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	Schmid, Hans Albrecht. 1995. "Creating the Architecture of a Manufacturing Framework by Design Patterns." Austin, Texas: OOPSLA.
	Baliga, John. July 1999. "Advanced Process Control: Soon to be a Must." Cahners Semiconductor International. <a href="http://www.semiconductor.net/semiconductor/issues/issues/1999/jul99/docs/feature1.asp">www.semiconductor.net/semiconductor/issues/issues/1999/jul99/docs/feature1.asp</a>
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EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	6,175,777	01/16/01	Kim			01/16/98
	6,178,390	01/23/01	Jun			09/08/98
	6,185,324	02/06/01	Ishihara et al.			01/31/95
	6,192,291	02/20/01	Kwon			10/08/98
	6,197,604	03/06/01	Miller et al.			10/01/98
	6,211,094	04/03/01	Jun et al.			08/23/99
	6,226,792	05/01/01	Goiffon et al.			10/14/98
	6,230,069	05/08/01	Campbell et al.			06/26/98
	6,236,903	05/22/01	Kim et al.			09/25/98
	6,240,330	05/29/01	Kurtzberg et al.			05/28/97

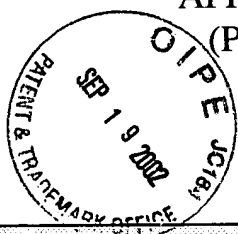
**FOREIGN PATENT DOCUMENTS**

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
	11-135601	05/21/99	Japan				X
	WO 00/05759	02/03/00	WO			X	
	WO 00/35063	06/15/00	WO			X	

**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

	July 5, 2001. "Motorola and Advanced Micro Devices Buy ObjectSpace Catalyst Advanced Process Control Product for Five Wafer Fabs." Semiconductor FABTECH. <a href="http://www.semiconductorfabtech.com/industry.news/9907/20.07.shtml">www.semiconductorfabtech.com/industry.news/9907/20.07.shtml</a>
	October 15, 2001. Search Report prepared by the Austrian Patent Office for Singapore Patent Application No. 200004286-1.
	Johnson, Bob. June 10, 2002. "Advanced Process Control Key to Moore's Law." Gartner, Inc.
	July 9, 2002. International Search Report prepared by the European Patent Office for PCT/US01/24910.
	July 29, 2002. International Search Report prepared by the European Patent Office for PCT/US01/27407.
	Sonderman, Thomas. 2002. "APC as a Competitive Manufacturing Technology: AMD's Vision for 300mm." AEC/APC.
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				APPLICANT Young Joseph PAIK			
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EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE	
	6,240,331	05/29/01	Yun			08/18/98	
	6,248,602	06/19/01	Bode et al.			11/01/99	
	6,252,412	06/26/01	Taibot et al.			01/08/99	
	6,263,255	07/17/01	Tan et al.			05/18/98	
	6,292,708	09/18/01	Allen et al.			06/11/98	
	6,298,274	10/02/01	Inoue			09/01/99	
	6,303,395	10/16/01	Nulman			06/01/99	
	6,345,315	02/05/02	Mishra			08/12/98	
	6,366,934	04/02/02	Cheng et al.			06/02/99	
<b>FOREIGN PATENT DOCUMENTS</b>							
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
	WO 00/79355 A1	12/28/00	WO			X	
	2001-76982	03/23/01	Japan				X
	WO 01/33501 A1	05/10/01	WO			X	
<b>OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)</b>							
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